

REMARKS

This communication responds to the Office Action mailed on January 17, 2006. Claims 1, 4, 11, 17, 19, 25, and 28 are amended, no claims are canceled, and no claims are added. As a result, claims 1-32 are now pending in this Application.

§112 Rejection of the Claims

Claims 1-32 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Office noted that while “the Applicant argues that the limitation ‘after exceeding a guaranteed minimum amount of the resource’ is directed to the determination of the average value ... the language supports an interpretation that control of the data flow occurs after exceeding the guaranteed amount of the resource. For purposes of the examination, the limitation ... is interpreted as directed to the determination of the average (as in Page 11 of the remarks).”

In response, the Applicant respectfully notes that claims 1, 11, 19, 25, and 28 have been amended to avoid a protracted discussion over semantics, and to make it clear that “the selected number of ports each use an amount of the resource greater than a guaranteed minimum amount of the resource,” and that “a reservation module ...[is] ... to share a remaining memory resource among the plurality of ports using more than the minimum memory resource.” That is, the claims have not been amended for reasons related to patentability.

The Application states:

“... an apparatus 100 may comprise a controlling module 114 to control a data flow 118 associated with one or more selected ports 122 having an actual usage value 126 above a determined average shared resource usage value 130 associated with the ports P1, P2, and P3 sharing a resource 134, such as a memory. *The number of ports 122 may be selected as those ports that have exceeded a minimum guaranteed resource limit.*” Application, Para. [0012] (emphasis added)

The Applicant believes that one of skill in the art would have no difficulty in determining the subject matter which the Applicant regards as the invention, and thus respectfully requests

reconsideration and withdrawal of the rejection of claims 1-32 under 35 USC § 112, second paragraph. Claims 4 and 17 have been amended in accordance with the antecedent basis provided by their respective independent claims, and not for reasons related to patentability. No new matter has been added.

§103 Rejection of the Claims

Claims 1-6, 11-13, 17-23, 28, and 32 were rejected under 35 USC § 103(a) as being unpatentable over Scifres et al. (U.S. 2003/0225905 A1; hereinafter “Scifres”) in view of Sato (U.S. 6,009,078; hereinafter “Sato”). Claims 7-10, 14-16, 25-27, and 30-31 were rejected under 35 USC § 103(a) as being unpatentable over Scifres in view of Sato, and in further view of Ruutu et al. (U.S. 2003/0123392 A1; hereinafter “Ruutu”). Claim 24 was rejected under 35 USC § 103(a) as being unpatentable over Scifres in view of Sato, and in further view of Liang (U.S. 5,933,427 A; hereinafter “Liang”). Claim 29 was rejected under 35 USC § 103(a) as being unpatentable over Scifres in view of Sato, and in further view of Roberts (U.S. 6,104,712 A; hereinafter “Roberts”). The Applicant does not admit that Scifres, Sato, Ruutu, Liang, or Roberts are prior art, and reserves the right to swear behind these references in the future. And, since a *prima facie* case of obviousness has not been established as required by M.P.E.P. § 2142, the Applicant respectfully traverses this rejection.

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988). The M.P.E.P. contains explicit direction to the Examiner in accordance with the *In re Fine* court:

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d (BNA) 1438 (Fed. Cir. 1991)).

The requirement of a suggestion or motivation to combine references in a *prima facie* case of obviousness is emphasized in the Federal Circuit opinion, *In re Sang Su Lee*, 277 F.3d 1338; 61 U.S.P.Q.2D 1430 (Fed. Cir. 2002), which indicates that the motivation must be supported by evidence in the record.

No proper *prima facie* case of obviousness has been established because (1) the combinations suggested do not teach all of the limitations set forth in the claims, (2) there is no motivation to combine the references, and (3) the suggested combinations provide no reasonable expectation of success. Each of these points will be detailed below.

The suggested combinations will not render all claimed elements: As mentioned in previous responses, and admitted by the Office, Scifres “fails to teach the determined average shared resource value as associated with the selected number of ports sharing a resource after exceeding a guaranteed minimum amount of the resource.” Neither do Sato, Ruutu, Liang, or Roberts.

Sato describes solving the problem of “cells being delivered to the specific output port are subjected to regulation or restriction ...”. Sato, Col. 2, lines 55-58. To solve the problem, Sato discloses a system wherein the “transmission of the cells can be carried out within the minimum guaranteed values P_{min1} to P_{minN} through each of the output ports O1 to ON even when the traffic congestion occurs in connection at another output port O1 to ON.” Sato, Col. 5, lines 8-12. This is possible because “the cells can be transmitted through a certain one of the output ports O1 to ON ... *provided that the number of cells stored in the one of the output port buffers B1 to BN that corresponds to the certain output port is smaller than the one of the first through N-th minimum guaranteed values P_{min1} to P_{minN} that corresponds to the one output port buffer.*” *Id.* at lines 1-8 (emphasis added).

Thus, the assertion made by the Office that a “resource usage value is determined as associated with the ports exceeding the guaranteed minimum amount ...” is only partially correct. While the terms are correct with respect to their literal use by Sato, the meaning of Sato is entirely different. Whereas the Applicant teaches a guaranteed minimum amount of the resource being set aside for the ports, Sato describes the “minimum guaranteed values P_{min1} to P_{minN} ” operating as *maximum* values, such that the cells will not be transmitted to the ports if their numbers exceed the “minimum guaranteed values”. *See Id.* at lines 61-66. Thus, Sato also

“fails to teach the determined average shared resource value as associated with the selected number of ports sharing a resource after exceeding a guaranteed minimum amount of the resource” as noted in the Office with respect to Scifres. The Office makes no assertion with respect to Ruutu, Liang, or Roberts in order to remedy this deficiency.

There is no motivation to make the suggested combinations: The claims are also nonobvious because the test for obviousness under § 103 must take into consideration the invention as a whole; that is, one must consider the particular problem solved by the combination of elements that define the invention. *See Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 U.S.P.Q. 543, 551 (Fed. Cir. 1985) (emphasis added). References must be considered in their entirety, including parts that teach away from the claims. *See* MPEP § 2141.02.

No proper *prima facie* case of obviousness has been established because both Sato and Ruutu teach away from the combinations suggested. That is, Sato teaches minimum guaranteed values that are in fact maximum values, because cell transmission does not occur if the number of cells equals or exceeds these values. *See* Sato, Col. 5, lines 1-8.

Ruutu operates to shift free capacity as soon as a nominal capacity has been exceeded. This is simply the allocation of a resource from one channel to another as soon as the capacity of a first channel is exceeded, taking away capacity from the second channel. *See* Ruutu, paras. [0016]-[0017]. Thus Ruutu, which uses an absolute capacity to regulate switching, also teaches away from using an average capacity associated with a guaranteed minimum value of the resource, as claimed by the Applicant.

The suggested combinations provide no reasonable expectation of success: Even if the suggested combinations are made, no reasonable expectation of success arises. This is because neither Sato nor Ruutu provide flow control with respect to an average shared resource value associated with a true guaranteed minimum resource usage. Thus, one of ordinary skill in the art would not expect that combining these references would produce the claimed embodiments.

In summary, the references neither teach nor suggest that “the selected number of ports each use an amount of the resource greater than a guaranteed minimum amount of the resource,” or that “a reservation module ...[is] ... to share a remaining memory resource among the plurality of ports using more than the minimum memory resource,” as claimed by the Applicant. Thus, independent claims 1, 11, 19, 25, and 28 are nonobvious. This conclusion applies with

AMENDMENT UNDER 37 C.F.R. 1.116 – EXPEDITED PROCEDURE

Serial Number: 10/705,315

Filing Date: November 10, 2003

Title: DATA FLOW MANAGEMENT APPARATUS, SYSTEMS, AND METHODS (As Amended)

Assignee: Intel Corporation

Page 12

Dkt: 884.A59US1 (INTEL)

even greater force respecting all of the dependent claims, since any claim depending from a nonobvious independent claim is also nonobvious. See M.P.E.P. § 2143.03.

Further, there is no motivation to combine the references, and no reasonable expectation of success arises if the suggested combinations are made. Thus, the requirements of M.P.E.P. § 2142 have not been satisfied; and a *prima facie* case of obviousness has not been established with respect to the Applicant's claims. It is therefore respectfully requested that the rejection of claims 1-32 under 35 U.S.C. § 103 be reconsidered and withdrawn.

CONCLUSION

The Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone the Applicant's attorney, Mark Muller at (210) 308-5677, or the undersigned attorney at (612) 349-9592, to facilitate prosecution of this Application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

SACHIN DOSHI ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
Attorneys for Intel Corporation
P.O. Box 2938
Minneapolis, Minnesota 55402
(612) 349-9592

Date March 10, 2006 By Ann M. McCrackin
Ann M. McCrackin
Reg. No. 42,858

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 10 day of March 2006.

Chris Hammond

Name

Chris Hammond

Signature